# **LMA District Cover Sheet**

# **Spring 2016 Levee Inspection Results**

# **Reclamation District No. 2089 Stark**

	Spring (March - May)	Summer ** (June - August)	Fall (September - November)	Winter ** (December - February)					
* Overall LMA Rating (Fall Only)									
	** Non-receipt of Summer or Winter Inspection Reports may effect overall annual ratir								
* SPRING INSPECTIONS: Overall maintenance ratings are not determined for the spring inspection results. Individual maintenance deficiencies are rated using the same criteria in the spring and in the fall.  FALL INSPECTIONS: The overall maintenance rating shown above is based on operation and maintenance deficiencies identified within the attached unit inspection reports. This rating is not intended to be an indiction of risk.									
Comments									

# **Unit Cover Sheet**

# **Spring 2016 Levee Inspection Results**

## **Reclamation District No. 2089 Stark**

Waterway	Bank	Unit Miles
Unit No. 01 Old River	Right	1.51

	Spring (March - May)	Summer (June - August)	(September - November) Fall	Winter (December - February)
Unit Maintenance Rating (Fall Only)				
Date of Inspection	3/15/2016 - 3/15/2016			
DWR Inspector	Maksim Khashchuk			
Accompanied By				

#### **Summer & Winter Inspections**

The Local Maintaining Agency (LMA) is responsible for summer and winter inspections. The LMA is required to submit a report regarding summer and winter inspections to the California Department of Water Resources (DWR).

DWR must be informed on the:

- a) completion of the inspection
- b) any changes other than the results of normal maintenance
- c) corrections to deficiencies noted in this report

If additional items are noted, further documentation of those items must also be submitted.

The LMA should submit this information to DWR using the LMA web application tool available at:

#### http://cdec.water.ca.gov/lma.html

If the LMA is unable to submit information on this webpage, please contact DWR for assistance.

The LMA should submit the information and any associated documentation by September 30 for summer inspections and March 31 for winter inspections.

# Levee Inspection Report By Mile - Spring 2016

# **Reclamation District No. 2089 Stark**

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Old River	Right	1.51	03/15/2016 03/15/2016	Maksim Khashchuk

LM Start		Rating **	Α	Issue No.		4		
LM End		Issue Type +	Ма	Location *	N/A			
Category	Earthen L	evee		GPS La	atitude	e/Longitude		
Calegory				Start		End		
Item	Operations & Maintenance				0		0	
пеш	Manuals				0		0	
DWR ID	DWR ID DWR_RD2089_01_s _ 2013_4							
		Comn	nent Cod	le				
		Inspecto	or Comm	nent				
The O&M Manual is available at the LMA's office.								

No Photos

LM Start		Rating **	Α	Issue No.		15			
LM End		Issue Type +	Ma	Location *		N/A			
Category	Earthen L	evee	evee			GPS Latitude/Longitude			
Calegory				Start		End			
Emergency Supplies &				0		0			
Equipment					0		0		
DWR ID	DWR_RD2	089_01_s _ 201	3_15						
		Comn	nent Cod	le					
Inspector Comment									
The I MA h	as flood fi	ahtina supplie	s on-site	7					

No Photos

	Rating **	Α	Issue No.		34		
	Issue Type +	Ма	Location *		N/A		
Earthen L	evee		GPS La	atituc	de/Longitude		
			Start		End		
Flood Pre	paredness &		0		0		
				0		0	
DWR_RD2	089_01_s _ 201	3_34					
	Comn	nent Cod	le				
	Inspecto	or Comm	ent				
The LMA has flood fight training and an emergency plan.							
	Flood Pre	Issue Type + Earthen Levee Flood Preparedness & Tomm	Issue Type + Ma Earthen Levee Flood Preparedness & Training DWR_RD2089_01_s _ 2013_34 Comment Coc	Issue Type + Ma Location *  Earthen Levee GPS La  Start  Flood Preparedness & Training  DWR_RD2089_01_s _ 2013_34  Comment Code  Inspector Comment	Issue Type + Ma Location *  Earthen Levee GPS Latitud Start  Flood Preparedness & Training o  DWR_RD2089_01_s _ 2013_34 Comment Code  Inspector Comment	Issue Type + Ma Location * N/A  Earthen Levee GPS Latitude/Longitude Start End  Flood Preparedness & Training  DWR_RD2089_01_s _ 2013_34  Comment Code  Inspector Comment	

* Location	** Rating		+ Issue Type
LS : Land Side N/A : Not Applicable	A : Acceptable	N : Not Inspected/Rated	Ma : Maintenance Deficiancy
WS : Water Side	M : Minimally Acceptable	C : Corrected	Ob : Design & System Obsolescence
CR : Crown	U : Unacceptable	A/W : Acceptable but Monitor & Maintain	En: Enforcement

# Levee Inspection Report By Mile - Spring 2016

# **Reclamation District No. 2089 Stark**

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Old River	Right	1.51	03/15/2016 03/15/2016	Maksim Khashchuk

LM Start	0.00	Rating **	М	Issue No.		9
LM End	0.38	Issue Type +	En	Location *		LS
Category	Earthen L	evee		GPS La	atitud	le/Longitude
Calegory				Start		End
Item	Encroachments			37.8116	81°	37.809755 °
пеш				-121.3849	30°	-121.391520 °
DWR ID DWR_RD2089_01_s _ 2012_9						
		Comn	nent Cod	le		
DT : Ditch						
		Inspecto	or Comm	ent		
05/24/2011 Photo added of Ag ditch.						



05/24/2011 Ditch flows parallel with the utility line shown in the photo.

LM Start	0.04	Rating **	М	Issue No.	1		
LM End	0.04	Issue Type +	Ма	Location *	LS		
Category	evee	GPS La	atitud	e/Longitude			
Category				Start		End	
Item	Encroach	ments		37.8114	74°	37.811474°	
item			-121.3855	73 °	-121.385573 °		
DWR ID DWR_RD2089_01_s _ 2012_1							
Comment Code							

#### ST : Stairway

#### Inspector Comment

Steps have been cut into the levee slope, this could become an erosion point, please fill and compact.



View of the stairs eroding into the landside levee slope.

LM Start	0.05	Rating **	С	Issue No.	42		
LM End	0.13	Issue Type +	Ма	Location *	LS		
Category Earthen Levee				GPS Latitude/Longitude			
Category				Start		End	
Item	Vegetatio	n		37.81141	8 °	37.811048 °	
Item				-121.38587	7°	-121.387242 °	
DWR ID DWR_RD2089_01_f _ 2013_42							
Comment Code							

#### V2 : Remove the wild growth other than native grasses from the levee

Inspector Comment

LMA removed the vegetation.

slopes.

* Location	** Rating		+ Issue Type
LS : Land Side N/A : Not Applicable WS : Water Side CR : Crown	A : Acceptable M : Minimally Acceptable U : Unacceptable	N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain	Ma : Maintenance Deficiancy Ob : Design & System Obsolescence En : Enforcement

# Levee Inspection Report By Mile - Spring 2016

# **Reclamation District No. 2089 Stark**

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Old River	Right	1.51	03/15/2016 03/15/2016	Maksim Khashchuk

LM Start	0.06	Rating **	С	Issue No.		22	
LM End	0.10	Issue Type +	Ma	Location *		WS	
Category	Earthen L	evee		GPS La	atitud	e/Longitude	
Calegory				Start		End	
Item	Vegetatio	egetation			81 °	37.811201	0
пеш				-121.3860	27 °	-121.386722	0
DWR ID	DWR_RD2	089_01_f _ 201	5_22				
		Comn	nent Cod	le			
V1 : Contro	ol annual g	rass and wee	ds on th	e levee slo	oes a	and	
easements	S.						
		Inspecto	or Comm	nent			

No Photos

LM Start	0.24	Rating **	A/W	Issue No.		940	
LM End	0.24	Issue Type +	Ma	Location *		LS	
Category Earthen Levee			GPS La	titud	e/Longitude		
Calegory				Start		End	
Item	Vegetatio	Vegetation			12°	37.810412 °	
пеш				-121.3891	15 °	-121.389115 °	
DWR ID	DWR_RD2	089_01_s _ 201	2_940				
			. ^				

#### Comment Code

V2: Remove the wild growth other than native grasses from the levee slopes.

### Inspector Comment

Arundo has been trimmed back from the crown but still remains as an obstruction to the slope and obstructs visibility, needs to be removed.

#### Photo 1 of 1: SP\_2016\_RD2089\_316\_940\_20160229\_00035.jpg



The LMA is actively trying to remove the vegetation on the landside levee slope and toe.

# Levee Inspection Report By Mile - Spring 2016

# **Reclamation District No. 2089 Stark**

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Old River	Right	1.51	03/15/2016 03/15/2016	Maksim Khashchuk

LM Start	<b>0.27</b> Rating ** U		Issue No.		12	
LM End	0.39	Issue Type +	Ма	Location *		LS
Category Earthen Levee				GPS La	tituc	le/Longitude
Calegory				Start		End
Item	Vegetation			37.81031	9°	37.809740 °
item				-121.38951	0 °	-121.391645 °
DWR ID	DWR_RD2089_01_s _ 2012_12					

#### Comment Code

V2 : Remove the wild growth other than native grasses from the levee slopes.

#### Inspector Comment

Access and visibility completely blocked. 11/10/2011 issue has not changed.



Thick brush and wild rose completely block access and visibility of landside slope and toe.

LM Start	0.32	Rating **	M	Issue No.		6
LM End	0.33	Issue Type +	Ма	Location *		WS
Category	Supplemental			GPS Latitude/Longitude		
Calegory				Start		End
Item	DWR Erosion Survey			37.8098	33 °	37.809833°
пеш				-121.3902	61 °	-121.390261 °
DWR ID	DWR_RD2089_01_s _ 2016_6					·

#### Comment Code

#### Inspector Comment

06/25/2015: The erosion is below a large oak tree. Vegetation is visible around the eroiosn site. [2015 Site ID:RD2089U01RM29.94]



Front view of the erosion site. Note the large tree above the erosion.

# Levee Inspection Report By Mile - Spring 2016

# **Reclamation District No. 2089 Stark**

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Old River	Right	1.51	03/15/2016 03/15/2016	Maksim Khashchuk

LM Start	0.33	Rating **	A/W	Issue No.		19	
LM End	0.33	Issue Type +	Ma	Location *		LS	
Category	Earthen L	evee		GPS La	atitud	e/Longitude	
Calegory				Start		End	
Vegetation				37.8099	83°	37.809983°	
пеш				-121.390678 °		° -121.390678 °	
DWR ID	DWR_RD2	089_01_s _ 201	2_19				
		Comn	nent Cod	le			
V2 : Remo	ve the wild	d growth other	than na	tive grasse	s fro	m the levee	
		Inspecto	or Comm	ent			
Arundo has been trimmed back from the roadway.							



Arundo was trimmed back from the road and needs to be maintained so that it does not obstruct visibility and access to the landside toe.

LM Start 0.37 Rating \*\* С Issue No. 946 Location \* 0.37 Issue Type + Ма LS LM End Earthen Levee GPS Latitude/Longitude Category Start End Trim / Thin Trees 37.809865° 37.809865 ° Item -121.391303 ° -121.391303 ° DWR\_RD2089\_01\_s \_ 2012\_946 DWR ID Comment Code T1: Trim trees to at least five feet above ground level.

Inspector Comment

# Levee Inspection Report By Mile - Spring 2016

#### Reclamation District No. 2089 Stark

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Old River	Right	1.51	03/15/2016 03/15/2016	Maksim Khashchuk

LM Start	<b>0.41</b> Rating ** M		Issue No.		28	
LM End	0.46	Issue Type +	Ma	Location *		LS
Category Earthen Levee			GPS Latitude/Longitude			
Calegory				Start		End
Item	Vegetatio	n		37.80959	93 °	37.809507°
пеш			-121.3919	63 °	-121.392907 °	
DWR ID	DWR_RD2089_01_s _ 2012_28					

#### Comment Code

V2 : Remove the wild growth other than native grasses from the levee slopes.

#### Inspector Comment

Vegetation is too thick to allow access and visibility. Some thick patches of shrubs remain and continue to block visibility and access.



05/24/2011 Photo shows thick dead vegetation and continuation of trees in area that are preventing access and visibility of landside slope and toe.

LM Start	0.46	Rating **	М	Issue No.		961		
LM End	0.46	Issue Type +	En	Location *		LS		
Category				GPS Latitude/Longitude				
Calegory				Start		End		
Item	DWR UCIP Field Study			37.8095	01°	37.809501	0	
пеш					98°	-121.392798	0	
DWR ID								

#### Comment Code

#### Inspector Comment

FS\_ID:21635 DS\_ID:23042 EP\_NO: 5641

Repair Type: Non-Urgent Crossing Status: Found

UCIP Comments: - damaged siphon breaker.- most of the pipe on

landside exposed on levee slope.

FIELD\_STRUCT\_DESC: 20-inch steel pipe and electric conduit through the levee, 5.8 feet below the crown, pump on pile structure in the stream. Siphon breaker on the landward slope. (App. No. 5641- Ted

Stark)

FS Date: 9/12/2013

#### Photo 1 of 2: UCIP\_SP\_2016\_21635\_36742.jpg



WS view: walkway to pump platform and pump on steel piling structure in the channel.

N: Not Inspected/Rated C: Corrected A/W: Acceptable but Monitor & Maintain + Issue Type

Ma : Maintenance Deficiancy

Ob : Design & System Obsolescence

En : Enforcement

# Levee Inspection Report By Mile - Spring 2016

# **Reclamation District No. 2089 Stark**

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Old River	Right	1.51	03/15/2016 03/15/2016	Maksim Khashchuk

LM Start	<b>0.46</b> Rating ** M		М	Issue No.		961 (cont)			
LM End	0.46	Issue Type +	En	Location *		LS			
Category	Supplemental					GPS Latitude/Longitude			
Calegory	Salegory					End			
Item	DWR UC	IP Field Study		37.80950	1°	37.809501 °			
пеш		-121.39279	3°	-121.392798 °					
DWR ID						·			

# Inspector Comment

Comment Code

FS\_ID:21635 DS\_ID:23042 EP\_NO: 5641

Repair Type: Non-Urgent Crossing Status: Found

UCIP Comments: - damaged siphon breaker.- most of the pipe on

landside exposed on levee slope.

FIELD\_STRUCT\_DESC: 20-inch steel pipe and electric conduit through the levee, 5.8 feet below the crown, pump on pile structure in the stream. Siphon breaker on the landward slope. (App. No. 5641- Ted

Stark)

FS Date: 9/12/2013



WS view: steel walkway, electric control box, and pump on steel piling structure in the channel.

LM Start	0.46	Rating **	М	Issue No.		5
LM End	0.46	Issue Type +	Ма	Location *		WS
Category	ental	GPS Latitude/Longitude				
Calegory				Start		End
Item	DWR Ero	DWR Erosion Survey				37.809394°
пеш			-121.39279	91 °	-121.392791 °	
DWR ID	DWR_RD2089_01_s _ 2016_5					

# Inspector Comment

Comment Code

06/25/2015: No significant change observed. 07/02/2014: No significant change observed.

08/13/2013: No significant change observed.

08/07/2012: The site has been visited by boat survey. No significant change observed

Offining observed of the site shows loose material around the pipe crossing. The operation of the pipe might have caused an impact on the levee. [2015 Site ID:RD2089U01RM29.8]

#### Photo 1 of 2: SP\_2016\_RD2089\_316\_5\_20160229\_00007.jpg



Close view of the site.

# Levee Inspection Report By Mile - Spring 2016

# **Reclamation District No. 2089 Stark**

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Old River	Right	1.51	03/15/2016 03/15/2016	Maksim Khashchuk

LM Start	0.46	Rating **	Rating ** M Issue No. 5 (c		5 (cont)		
LM End	0.46	Issue Type +	Ma	Location *		WS	
Category	GPS Latitude/Longitude						
Calegory			Start		End		
Item	DWR Erosion Survey			37.8093	94°	37.809394	0
item				-121.3927	91 °	-121.392791	0
DWR ID DWR_RD2089_01_s _ 2016_5							
Comment Code							

# Inspector Comment

06/25/2015: No significant change observed.

07/02/2014: No significant change observed. 08/13/2013: No significant change observed.

08/07/2012: The site has been visited by boat survey. No significant change observed

08/23/2011: The site shows loose material around the pipe crossing. The operation of the pipe might have caused an impact on the levee. [2015 Site ID:RD2089U01RM29.8]

#### Photo 2 of 2: SP\_2016\_RD2089\_316\_5\_20160229\_00008.jpg



Front view of the site.

LM Start	0.48	Rating **	С	Issue No.		30	
LM End	0.48	Issue Type +	Ma	Location *		LS	
Category	Earthen Levee					e/Longitude	
Category				Start		End	
Item	Vegetatio	37.80966	5 °	37.809665	0		
item				-121.39321	9°	-121.393219	0
DWR ID	ID DWR_RD2089_01_s _ 2012_30						

#### Comment Code

 $\ensuremath{\mathsf{V2}}$  : Remove the wild growth other than native grasses from the levee slopes.

#### Inspector Comment

Dead growth is too thick to allow access during flood fight situation and completely obstructs visibility of the landside toe.

# Levee Inspection Report By Mile - Spring 2016

# **Reclamation District No. 2089 Stark**

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Old River	Right	1.51	03/15/2016 03/15/2016	Maksim Khashchuk

LM Start	0.54	Rating **	М	Issue No.		14	
LM End	0.54	Issue Type +	Ма	Location *		CR	
Category	GPS La	atitud	e/Longitude				
Calegory	Start		End				
Item		Crown Surface / Depressions /				37.810087	
пеш	Rutting			-121.3942	00°	-121.394200	
DWR ID DWR_RD2089_01_s _ 2012_14							
		Comn	nent Cod	le			
C3 : Add a	ppropriate	gravel or roa	d base.	Grade and	com	pact.	
Inspector Comment							
11/10/2011 Minor depressions will cause ponding.							



11/10/2011 Depressions in crown.

LM Start	0.63	Rating **	С	Issue No.		18	
LM End	0.69	Issue Type +	Ma	Location *	WS		
Category	evee	GPS Latitude/Longitude					
Calegory				Start		End	
Item	Vegetation				48 °	37.809641 °	
пеш			-121.3957	62 °	-121.396709°		
DWR ID DWR_RD2089_01_s _ 2012_18							
Comment Code							

V2 : Remove the wild growth other than native grasses from the levee slopes.

#### Inspector Comment

11/10/2011 Waterside vegetation is too thick to allow access and visibility.

LM Start	0.65	Rating **	С	Issue No.		31		
LM End	0.67	Issue Type +	Ма	Location *	LS			
Category	evee	GPS Latitude/Longitude						
Category				Start		End		
Item	Vegetation				75°	37.809822 °		
item				-121.3961	07°	-121.396376 °		
DWR ID DWR_RD2089_01_s _ 2012_31								
	Comment Code							

 $\ensuremath{\mathsf{V2}}$  : Remove the wild growth other than native grasses from the levee slopes.

#### Inspector Comment

Dead brush needs to be removed, too thick to allow access and obstructs visibility of levee slope and toe

* Location	** Rating		+ Issue Type
LS : Land Side N/A : Not Applicable WS : Water Side CR : Crown	A : Acceptable M : Minimally Acceptable U : Unacceptable	N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain	Ma : Maintenance Deficiancy Ob : Design & System Obsolescence En : Enforcement

# Levee Inspection Report By Mile - Spring 2016

#### Reclamation District No. 2089 Stark

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Old River	Right	1.51	03/15/2016 03/15/2016	Maksim Khashchuk

LM Start	0.67	Rating **	U	Issue No.	3		
LM End	0.67	Issue Type +	Ма	Location *	WS		
Category Supplemental			GPS Latitude/Longitude				
			Start		End		
ltom	DWR Ero	sion Survey		37.80978	30°	37.809780°	
Item				-121.39623	30°	-121.396230 °	
DWR ID DWR_RD2089_01_s _ 2016_3							
Comment Code							

# Inspector Comment

06/25/2015: No significant change observed.

07/02/2014: No significant change observed. 08/13/2013: No significant change observed.

08/07/2012: The site has been visited by boat survey. No significant change observed

08/23/2011: The 5-foot vertical scarp shows no significant change from the last year inspection. No new erosion activities observed. Dense white willow trees on site.

09/07/2010: It was difficult to view the erosion due to the thick Willow thickets and other vegetation at the water line. At the time of the inspection, there were no signs of repair on site. As noted during the last survey, there is a 5-foot vertical scarp along the lower slope that may be subjected to high flow velocities.

08/05/2010: Recommended for repair, per CLRO; "Erosion of this site may be subjective to rapid rates of erosion."

09/28/2009: No major change observed; 5-foot vertical scarp is immediately downstream of where berm has tapered; site is recommended as local maintenance issue, per CLRO CES Evaluation 2008 Report; Site # is the same as RM29.6, LM0.60; previously rated "U".

11/05/2008: No change observed; rodent holes on lower slope; wide levee crown. [2015 Site ID:RD2089U01RM29.61]

LM Start	0.67	Rating **	U	Issue No.	3 (cont)
LM End	0.67	Issue Type +	Ma	Location *	WS

#### Photo 1 of 3: SP\_2016\_RD2089\_316\_3\_20160229\_00004.jpg



Front view of the site. Note the erosion is invisible because of the dense vegetation.

#### Photo 2 of 3: SP\_2016\_RD2089\_316\_3\_20160229\_00005.jpg



Front view of the site. The scarp is visible on the slope.

# **Levee Inspection Report By Mile - Spring 2016**

#### Reclamation District No. 2089 Stark

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Old River	Right	1.51	03/15/2016 03/15/2016	Maksim Khashchuk

LM Start	0.67	Rating **	U	Issue No.		3 (cont)
LM End	0.67	Issue Type +	Ма	Location *		WS
Supplemental			GPS Latitude/Longitude			
Calegory	Category			Start		End
Item	DWR Ero	sion Survey		37.8097	80°	37.809780 °
пеш	item				30°	-121.396230 °
DWR ID DWR_RD2089_01_s _ 2016_3						

# Inspector Comment

Comment Code

06/25/2015: No significant change observed.

07/02/2014: No significant change observed. 08/13/2013: No significant change observed.

08/07/2012: The site has been visited by boat survey. No significant change observed

08/23/2011: The 5-foot vertical scarp shows no significant change from the last year inspection. No new erosion activities observed. Dense white willow trees on site.

09/07/2010: It was difficult to view the erosion due to the thick Willow thickets and other vegetation at the water line. At the time of the inspection, there were no signs of repair on site. As noted during the last survey, there is a 5-foot vertical scarp along the lower slope that may be subjected to high flow velocities.

08/05/2010: Recommended for repair, per CLRO; "Erosion of this site may be subjective to rapid rates of erosion."

09/28/2009: No major change observed; 5-foot vertical scarp is immediately downstream of where berm has tapered; site is recommended as local maintenance issue, per CLRO CES Evaluation 2008 Report; Site # is the same as RM29.6, LM0.60; previously rated "U".

11/05/2008: No change observed; rodent holes on lower slope; wide levee crown. [2015 Site ID:RD2089U01RM29.61]

#### Photo 3 of 3: SP\_2016\_RD2089\_316\_3\_20160229\_00006.jpg



Front view of the site.

LM Start	0.71	Rating **	С	Issue No.	20				
LM End	0.76	Issue Type +	Ma	Location *	LS				
Category	evee	GPS Latitude/Longitude							
Category	Calegory					End			
Item	Vegetatio	n		37.80951	6°	37.808909 °			
пеш			-121.39695	5 °	-121.397557 °				
DWR ID DWR_RD2089_01_s _ 2012_20									
	Commont Codo								

#### Comment Code

V2: Remove the wild growth other than native grasses from the levee slopes.

#### Inspector Comment

11/10/2011 Dead vegetation prohibits visibility of the landside toe.

* Location	** Rating		+ Issue Type
LS : Land Side N/A : Not Applicable WS : Water Side CR : Crown	A : Acceptable M : Minimally Acceptable U : Unacceptable	N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain	Ma : Maintenance Deficiancy Ob : Design & System Obsolescence En : Enforcement

# **Levee Inspection Report By Mile - Spring 2016**

# **Reclamation District No. 2089 Stark**

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Old River	Right	1.51	03/15/2016 03/15/2016	Maksim Khashchuk

LM Start	0.80	Rating **	M	Issue No.		960	
LM End	0.80	Issue Type +	En	Location *	LS		
Category				GPS Latitude/Longitude			
Calegory				Start		End	
Item	DWR UC	IP Field Study		37.8083	87°	37.808387	•
item		-121.3978	43 °	-121.397843	۰		
DWR ID							

# Comment Code

#### Inspector Comment

FS\_ID:21587 DS\_ID:23043 EP\_NO: 3385

Repair Type: Non-Urgent Crossing Status: Found

UCIP Comments: - powerline on landside.- electric control box on waterside.- waterside slope erosion under pump platform.

FIELD\_STRUCT\_DESC: 16-inch pipe through the levee, 5.5 feet below the crown, slant pump in pump house on the waterward slope. Siphon breaker on the landward slope. (App. No. 3385-Elinore Lawrence).

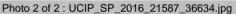
Originally included in O+M (1968)

FS Date: 9/12/2013

LM Start	0.80	Rating **	М	Issue No.	960 (cont)
LM End	0.80	Issue Type +	En	Location *	LS



WS view: slant pump on wooden platform. Oil leaks from the pump.





WS view: soil erosion under pump platform. Needs mitigation measures to stop erosion.

# Levee Inspection Report By Mile - Spring 2016

# **Reclamation District No. 2089 Stark**

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Old River	Right	1.51	03/15/2016 03/15/2016	Maksim Khashchuk

LM Start	0.81	Rating **	М	Issue No.		17		
LM End	0.94	Issue Type +	Ma	Location *		LS		
Earthen Levee				GPS La	atitud	e/Longitude		
Category						End		
Item	Slope Sta	Slope Stability			19°	37.806453°		
item					81 °	-121.397755 °		
DWR ID DWR_RD2089_01_f _ 2014_17								
		Comn	nent Cod	le				
S1 : Repai	r slope ins	tability.						
		Inspecto	or Comm	nent				
Landside levee toe cut due to farming.								



View of the vertical cut along the landside levee toe.

LM Start	0.84	Rating **	A/W	Issue No.		36	
LM End	0.87	Issue Type +	Ма	Location *	tion * WS		
Category Earthen Levee			GPS Latitude/Longitude				
Calegory						End	
Item	Vegetatio	n		37.8078	86°	37.807376	0
item					33 °	-121.397739	0
DWR ID DWR_RD2089_01_s _ 2012_36							

# Comment Code

# V7 : Trees / Woody Vegetation

# Inspector Comment

Tall weeds and brush on top 20' of waterside slope obstruct visibility.

#### Photo 1 of 1: SP\_2016\_RD2089\_316\_36\_20160321\_00055.jpg



View of tall willows on waterside slope.

LM Start	0.94	Rating **	A/W	Issue No.		33
LM End	0.94	Issue Type +	Ма	Location *	cation * V	
Category Earthen Levee			GPS Latitude/Longitude			
Calegory			Start		End	
Item	Vegetatio	n		37.80639	97 °	37.806397°
пеш			-121.3977	58 °	-121.397758°	
DWR ID	DWR_RD2	089_01_s _ 201	2_33			

#### Comment Code

V2 : Remove the wild growth other than native grasses from the levee slopes.

#### Inspector Comment

Arundo on waterside impedes visibility and access to waterside slope.

#### Photo 1 of 1: SP\_2016\_RD2089\_316\_33\_20160321\_00056.jpg



Arundo was trimmed back and needs to be maintained to allow visibility and access.

* Location	** Rating		+ Issue Type
LS : Land Side N/A : Not Applicable WS : Water Side CR : Crown	A : Acceptable M : Minimally Acceptable U : Unacceptable	N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain	Ma : Maintenance Deficiancy Ob : Design & System Obsolescence En : Enforcement

# Levee Inspection Report By Mile - Spring 2016

# **Reclamation District No. 2089 Stark**

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Old River	Right	1.51	03/15/2016 03/15/2016	Maksim Khashchuk

LM Start	0.95	Rating **	С	Issue No.		35	
LM End	1.01	Issue Type +	Ма	Location *		WS	
Category	evee	GPS La	atitud	e/Longitude			
Calegory				Start		End	
Item	Vegetatio		37.8062	64°	37.806083 °		
Item				-121.3979	-121.397961 °		
DWR ID	DWR_RD2	089_01_s _ 201	2_35				
		Comn	nent Cod	le			
V2 : Remo	ve the wild	d growth other	than na	tive grasses	s fro	m the levee	
		Inspecto	or Comm	nent			

No Photos

LM Start	1.02	Rating **	M	Issue No.	956	
LM End	1.02	Issue Type +	Ma	Location *	LS	
Category	Category Earthen Levee			GPS Latitude/Longitude		
Category	Salegory			Start		End
Item	Vegetatio	n		37.80602	26°	37.806026 °
пеш			-121.39920	06°	-121.399206°	
DWR ID	DWR_RD2	089_01_s _ 201	2_956			

Comment Code

V4: Elderberries are blocking visibility and flood fight capability.

Inspector Comment

Elderberry and tobacco block visibility.

No Photos

LM Start	1.07	Rating **	U	Issue No.		957	
LM End	1.07	Issue Type +	Ma	Location *		LS	
Catagoni Earthen Levee				GPS La	atitud	e/Longitude	
Calegory	Category			Start		End	
Item	Vegetatio	n		37.8058	48 °	37.805848	0
пеш					03 °	-121.400003	0
DWR ID	DWR_RD2	089_01_s _ 201	2_957				
		Comn	nent Coc	de			

V4: Elderberries are blocking visibility and flood fight capability.

Inspector Comment

Brush blocks access.

* Location	** Rating		+ Issue Type
LS: Land Side N/A: Not Applicable	A : Acceptable	N : Not Inspected/Rated	Ma : Maintenance Deficiancy
WS : Water Side	M : Minimally Acceptable	C : Corrected	Ob : Design & System Obsolescence
CR : Crown	U : Unacceptable	A/W : Acceptable but Monitor & Maintain	En: Enforcement

# Levee Inspection Report By Mile - Spring 2016

# **Reclamation District No. 2089 Stark**

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Old River	Right	1.51	03/15/2016 03/15/2016	Maksim Khashchuk

LM Start	1.12	Rating **	М	Issue No.	16		
LM End	1.12	Issue Type +	Ма	Location *	LS		
Category Earthen Levee			GPS Latitude/Longitude				
Calegory	negory					End	
Item	Animal Co	ontrol		37.80569	9°	37.805699	0
пеш			-121.40095	2°	-121.400952	0	
DWR ID	DWR_RD2	089_01_f _ 201	4_16				

# Comment Code

A3 : No rodents visible, but rodent burrows visible; need to backfill and compact or grout burrows.

#### Inspector Comment

Some rodent holes have collapsed. Backfill the remaining voids in the levee slope.

# Photo 1 of 1 : SP\_2016\_RD2089\_316\_16\_20160229\_00013.jpg



View of the rodent burrow on the landside levee slope.

LM Start	1.14	Rating **	U	Issue No.		958		
LM End	1.14	Issue Type +	En	Location *	LS			
Category Supplemental				GPS Latitude/Longitude				
Calegory	ry		Start		End			
Item	DWR UC	IP Field Study		37.8056	44 °	37.805644 °		
пеш				-121.4011	77 °	-121.401177 °		
DWR ID								

#### Comment Code

#### Inspector Comment

FS\_ID:21754 DS\_ID:23044 EP\_NO: 3585

Repair Type: Urgent Crossing Status: Found

UCIP Comments: - huge slope erosion on landside slope.- most of the pipe exposed on levee slope.- service pole on landside.

FIELD\_STRUCT\_DESC: 12-inch pipe through levee, 3.0 feet below the crown. Pump over concrete pipe in drain ditch on the landside. Siphon breaker on the waterside slope and air vent on landside. (App. No. 3585 - Elinore Lawrence). Originally included in O+M (1968)

FS Date: 9/12/2013

#### Photo 1 of 2: UCIP\_SP\_2016\_21754\_36965.jpg



WS view: most of the waterside pipe exposed on levee slope.

# Levee Inspection Report By Mile - Spring 2016

# **Reclamation District No. 2089 Stark**

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Old River	Right	1.51	03/15/2016 03/15/2016	Maksim Khashchuk

LM Start	1.14	Rating **	U	Issue No.		958 (cont)
LM End	1.14	Issue Type +	En	Location *	LS	
Category	Suppleme	ental		GPS La	e/Longitude	
Calegory						End
Item	DWR UC	IP Field Study		37.80564	4 °	37.805644°
пеш					7°	-121.401177°
DWR ID						

# Inspector Comment

Comment Code

FS\_ID:21754 DS\_ID:23044 EP\_NO: 3585 Repair Type: Urgent Crossing Status: Found

UCIP Comments: - huge slope erosion on landside slope.- most of the pipe exposed on levee slope.- service pole on landside.

FIELD\_STRUCT\_DESC: 12-inch pipe through levee, 3.0 feet below the crown. Pump over concrete pipe in drain ditch on the landside. Siphon breaker on the waterside slope and air vent on landside. (App. No. 3585 - Elinore Lawrence). Originally included in O+M (1968)

FS Date: 9/12/2013



WS view: siphon breaker on pipe hinge on levee slope.

#### Rating \*\* LM Start 1.19 $\Delta / \Lambda \Lambda /$ Issue No. 25 1.19 Issue Type + Ма Location \* WS LM End Earthen Levee GPS Latitude/Longitude Category Start End Vegetation 37.805663° 37.805663 Item -121.402151 ° -121.402151 ° DWR ID DWR\_RD2089\_01\_s \_ 2016\_25

#### Comment Code

V2 : Remove the wild growth other than native grasses from the levee slopes.

#### Inspector Comment

Arrundo was trimmed back but may creep up the waterside levee slope if not maintained.

#### Photo 1 of 1: SP\_2016\_RD2089\_316\_25\_20160229\_00019.jpg



View of the Arundo on the waterside slope obstructing visibility. LMA is actively trying to remove the wild growth.

# Levee Inspection Report By Mile - Spring 2016

# **Reclamation District No. 2089 Stark**

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Old River	Right	1.51	03/15/2016 03/15/2016	Maksim Khashchuk

LM Start	1.22	Rating **	М	Issue No.		43		
LM End	1.22	Issue Type +	Ma	Location *	CR			
Category		GPS La	tituc	le/Longitude				
Calegory				Start		End		
Item		rface / Depres	ssions /	37.80573	35 °	37.805735	0	
item	Rutting			-121.4026	14 °	-121.402614	2	
DWR ID DWR_RD2089_01_s _ 2012_43								
		Comn	nent Cod	le				
C3 : Add a	ppropriate	gravel or roa	d base.	Grade and	com	npact.		
		Inspecto	or Comm	ent				
11/10/2011 Depression needs to be filled.								



11/10/2011 Depression in roadway.

LM Start	1.23	Rating **	М	Issue No.	2			
LM End	1.24	Issue Type +	Ma	Location *	WS			
Category	Suppleme	ental	GPS Latitude/Longitude					
Calegory				Start End		End		
Item	DWR Erosion Survey			37.8055	80°	37.805580		
пеш				-121.4030	10°	-121.403010		
DWR ID DWR_RD2089_01_s _ 2016_2								
	Comment Code							

#### Inspector Comment

06/25/2015: No significant change observed. 07/02/2014: No significant change observed.

08/13/2013: The erosion is around a tree at the levee toe. Dense vegetation is visible. [2015 Site ID:RD2089U01RM29.04]

LM Start	1.23	Rating **	М	Issue No.	2 (cont)
LM End	1.24	Issue Type +	Ma	Location *	WS

# Photo 1 of 2 : SP\_2016\_RD2089\_316\_2\_20160229\_00002.jpg



View of the erosion from the survey boat.

#### Photo 2 of 2: SP\_2016\_RD2089\_316\_2\_20160229\_00003.jpg



Close view of the site. Note the tree and the vegetation.

* Location	** Rating		+ Issue Type
LS : Land Side N/A : Not Applicable WS : Water Side CR : Crown	A : Acceptable M : Minimally Acceptable U : Unacceptable	N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain	Ma : Maintenance Deficiancy Ob : Design & System Obsolescence En : Enforcement

# Levee Inspection Report By Mile - Spring 2016

# **Reclamation District No. 2089 Stark**

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Old River	Right	1.51	03/15/2016 03/15/2016	Maksim Khashchuk

LM Start	1.23	Rating **	М	Issue No.		44	
LM End	1.23	Issue Type +	Ма	Location *		LS	
Cotogony	Earthen Levee GPS Latitude/Longitude					le/Longitude	
Category				Start		End	
Item	Crown Surface / Depressions /			37.8058	01°	37.805801 °	
пеш	Rutting			-121.4029	13 °	-121.402913 °	
DWR ID DWR_RD2089_01_s _ 2012_44							
		Comn	nent Cod	le			
C3 : Add a	ppropriate	gravel or road	d base.	Grade and	com	pact.	
		Inspecto	or Comm	nent			
11/10/201	1 Depressi	on in roadway	/ needs t	o be filled.			



11/10/2011 Roadway depression.

LM Start	1.34	Rating **	М	Issue No.		45	
LM End	1.34	Issue Type +	Ma	Location *		CR	
Category Earthen Levee			GPS Latitude/Longitude				
Calegory						End	
Item		Crown Surface / Depressions /			28°	37.806128°	
пеш	Rutting			-121.4048	90°	-121.404890 °	
DWR ID DWR_RD2089_01_s _ 2012_45							
Comment Code							

C3 : Add appropriate gravel or road base. Grade and compact.

#### Inspector Comment

11/10/2011 Depression needs to be filled.

# Photo 1 of 1 : SP\_2016\_RD2089\_316\_45\_20160229\_00030.jpg



11//10/2011 Roadway depression.

LM Start	1.40	Rating **	М	Issue No.	47		
LM End	1.40	Issue Type +	Ма	Location *	LS		
Category	Earthen L	evee		GPS Latitude/Longitude			
Calegory				Start		End	
Item	Animal Co	Animal Control			8 °	37.806268 °	
пеш				-121.40587	'4 °	-121.405874 °	
DWR ID	DWR_RD2	089_01_s _ 201	2_47				
Comment Code							

A3 : No rodents visible, but rodent burrows visible; need to backfill and compact or grout burrows.

#### Inspector Comment

11/10/2011 No rodents visible, but active burrows are present.

#### Photo 1 of 1: SP\_2016\_RD2089\_316\_47\_20160229\_00032.jpg



11/10/2011 Active rodent burrow on landside slope.

* Location	** Rating		+ Issue Type
LS : Land Side N/A : Not Applicable WS : Water Side CR : Crown	A : Acceptable M : Minimally Acceptable U : Unacceptable	N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain	Ma : Maintenance Deficiancy Ob : Design & System Obsolescence En : Enforcement

# **Levee Inspection Report By Mile - Spring 2016**

# **Reclamation District No. 2089 Stark**

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Old River	Right	1.51	03/15/2016 03/15/2016	Maksim Khashchuk

LM Start	1.40	Rating **	М	Issue No.	46			
LM End	1.40	Issue Type +	Ma	Location *	LS			
Category Earthen Levee				GPS Latitude/Longitude				
Calegory	ly			Start		End		
Item	Encroachments			37.80626	66°	37.806266 °		
пеш				-121.4058	76°	-121.405876 °		
DWR ID DWR_RD2089_01_s _ 2012_46								
Comment Code								

TR: Tree or limb

#### Inspector Comment

11/10/2011 Downed tree at levee toe prevents access to levee from landside.

# Photo 1 of 1: SP\_2016\_RD2089\_316\_46\_20160229\_00031.jpg

Decaying tree at the landside levee toe is obstructing visibility and access.

LM Start	1.40	Rating **	U	Issue No.		26	
LM End	1.40	Issue Type +	Ma	Location *		CR	
Category Earthen Levee				GPS Latitude/Longitude			
Calegory	alegory			Start		End	
Item	Animal Co	Animal Control			06°	37.806306°	
item	item			-121.4059	52°	-121.405952 °	
DWR ID	DWR_RD2	089_01_f _ 201	5_26				

#### Comment Code

A3: No rodents visible, but rodent burrows visible; need to backfill and compact or grout burrows.

#### Inspector Comment

Rodent hole is at least 4 ft. deep and needs to be backfilled and compacted.

# Photo 1 of 1: SP\_2016\_RD2089\_316\_26\_20160229\_00020.jpg



View of the rodent hole on the levee crown.

# Levee Inspection Report By Mile - Spring 2016

# **Reclamation District No. 2089 Stark**

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Old River	Right	1.51	03/15/2016 03/15/2016	Maksim Khashchuk

LM Start	1.41	Rating **	U	Issue No.	963			
LM End	1.41	Issue Type +	En	Location *	CR			
Category				GPS Latitude/Longitude				
Calegory		Start		End				
Item	DWR UCIP Field Study			37.80632	23°	37.806323°		
пеш				-121.40614	19°	-121.406149°		
DWR ID								
Comment Code								

# Inspector Comment

FS\_ID:46720 DS\_ID:24667 EP\_NO: N/A Repair Type: Urgent Crossing Status: Found

UCIP Comments: - if abandoned, it needs proper abandonment. Pipe

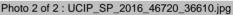
damaged and open on both ends.

FIELD\_STRUCT\_DESC: A 6-inch PVC pipe through the levee, 2 ft. below the crown and open both ends. Field study discovered pipe. FS Date: 9/12/2013

LM Start	1.41	Rating **	U	Issue No.	963 (cont)
LM End	1.41	Issue Type +	En	Location *	CR



WS view: 6-inch pvc pipe on levee slope. Pipe end open and damaged.





WS view: inside view of pvc pipe. Sediments found inside the pipe.

# **Levee Inspection Report By Mile - Spring 2016**

# **Reclamation District No. 2089 Stark**

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Old River	Right	1.51	03/15/2016 03/15/2016	Maksim Khashchuk

LM Start	1.41	Rating **	М	Issue No.	959			
LM End	1.41	Issue Type +	En	Location *	CR			
Category				GPS Latitude/Longitude				
Calegory	gory			Start		End		
Item	DWR UC	IP Field Study		37.80632	3°	37.806323 °		
пеш				-121.40615	5 °	-121.406155 °		
DWR ID								
	Comment Code							

# Inspector Comment

FS\_ID:21585 DS\_ID:23045 EP\_NO: N/A

Repair Type: Non-Urgent Crossing Status: Found

UCIP Comments: - siphon breaker needs repair.

FIELD\_STRUCT\_DESC: 10-inch steel pipe through the levee, 2.4 feet below the crown. Pump in drain ditch on the landward side. Siphon

breaker on the waterward shoulder.

FS Date: 9/12/2013

LM Start	1.41	Rating **	М	Issue No.	959 (cont)
LM End	1.41	Issue Type +	Fn	Location *	CR

Photo 1 of 2: UCIP\_SP\_2016\_21585\_36624.jpg



WS view: exposed steel pipe on levee slope. A pvc pipe on left.

#### Photo 2 of 2: UCIP\_SP\_2016\_21585\_36623.jpg



WS view: exposed steel pipe with siphon breaker. Looks siphon breaker needs repair.

# Levee Inspection Report By Mile - Spring 2016

# **Reclamation District No. 2089 Stark**

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Old River	Right	1.51	03/15/2016 03/15/2016	Maksim Khashchuk

LM Start	1.43	Rating **	С	Issue No.		52		
LM End	1.43	Issue Type +	En	Location *		LS		
Cotogony	Earthen L	evee		GPS La	atitud	e/Longitude		
Category				Start		End		
Item	Encroach	ments		37.8063	78 °	37.806378 °		
пеш				-121.4064	86 °	-121.406486 °		
DWR ID	DWR ID DWR_RD2089_01_f _ 2013_52							
		Comn	nent Cod	le				
PR : Prunii	ngs							
		Inspecto	or Comm	ent				

No Photos

LM Start	1.44	Rating **	М	Issue No.		49		
LM End	1.44	Issue Type +	Ма	Location *		WS		
Category Earthen Levee			GPS Latitude/Longitude					
Category			Start		End			
Itom	Animal Co	nimal Control			83°	37.806383 °		
Item		-121.4065	99°	-121.406599 °				
DWR ID DWR_RD2089_01_s _ 2012_49								

#### Comment Code

A3 : No rodents visible, but rodent burrows visible; need to backfill and compact or grout burrows.

# Inspector Comment

Deep burrow on waterside needs to be filled.

## Photo 1 of 1: SP\_2016\_RD2089\_316\_49\_20160229\_00033.jpg



11/10/2011 Deep burrow on waterside.

# Levee Inspection Report By Mile - Spring 2016

# **Reclamation District No. 2089 Stark**

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Old River	Right	1.51	03/15/2016 03/15/2016	Maksim Khashchuk

LM Start	1.48	Rating **	U	Issue No.		962	
LM End	1.48	Issue Type +	En	Location *	WS		
Category			GPS Latitude/Longitude				
Calegory	Calegory			Start		End	
Item	DWR UCIP Field Study			37.8065	20°	37.806520	0
пеш	m			-121.4073	92 °	-121.407392	0
DWR ID							
Comment Code							

# Inspector Comment

FS\_ID:46090 DS\_ID:23046 EP\_NO: 4133A Repair Type: Urgent

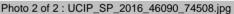
Crossing Status: Found
UCIP Comments: Crossing appears abandoned; if so, should be done so properly. Pipe open on WS. Holes and cracks visible on pipe.
FIELD\_STRUCT\_DESC: Concrete sleeve appr. 12-inch dia, containing steel pipe, appr. 8 ft below crown on WS slope only. Pipe does not cross channel and may not cross levee. May be related to gasline crossing with DS ID 25121. Discovered from boat on 2015 DWR

Erosion Survey. FS Date: 6/25/2015

Photo 1 of 2: UCIP SP 2016 46090 74506.jpg

View up WS slope from water. Pipe does not cross channel.

# LM Start 1.48 Rating \*\* U Issue No. 962 (cont) LM End 1.48 Issue Type + En Location \* WS





Gasline marker (for crossing with DS ID 25121) appr. 100 ft west of crossing.

N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain + Issue Type

Ma : Maintenance Deficiancy

Ob : Design & System Obsolescence
En : Enforcement

# **Unit Cover Sheet**

#### **Spring 2016 Levee Inspection Results**

#### **Reclamation District No. 2089 Stark**

Waterway	Bank	Unit Miles
Unit No. 02 Salmon Slough	Right	1.35

	Spring (March - May)	Summer (June - August)	(September - November) Fall	Winter (December - February)
Unit Maintenance Rating (Fall Only)				
Date of Inspection	3/15/2016 - 3/15/2016			
DWR Inspector	Maksim Khashchuk			
Accompanied By				

#### **Summer & Winter Inspections**

The Local Maintaining Agency (LMA) is responsible for summer and winter inspections. The LMA is required to submit a report regarding summer and winter inspections to the California Department of Water Resources (DWR).

DWR must be informed on the:

- a) completion of the inspection
- b) any changes other than the results of normal maintenance
- c) corrections to deficiencies noted in this report

If additional items are noted, further documentation of those items must also be submitted.

The LMA should submit this information to DWR using the LMA web application tool available at:

#### http://cdec.water.ca.gov/lma.html

If the LMA is unable to submit information on this webpage, please contact DWR for assistance.

The LMA should submit the information and any associated documentation by September 30 for summer inspections and March 31 for winter inspections.

# Levee Inspection Report By Mile - Spring 2016

# **Reclamation District No. 2089 Stark**

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 Salmon Slough	Right	1.35	03/15/2016 03/15/2016	Maksim Khashchuk

LM Start	0.06	Rating **	U	Issue No.		20	
LM End	0.06	Issue Type +	Ma	Location *		LS	
Category	Earthen L	evee		GPS La	atitud	e/Longitude	
Calegory		Start		End			
Item	Vegetatio		37.8073	841 °	37.807341°		
пеш				-121.408686 °		-121.408686 °	
DWR ID DWR_RD2089_02_s _ 2016_20							
		Comn	nent Cod	le			
V2 : Remove the wild growth other than native grasses from the levee slopes.							
Inspector Comment							



View of the vegetation on the landside levee slope.

LM Start	0.07	Rating **	U	Issue No.		4	
LM End	0.07	Issue Type +	Ma	Location *		WS	
Category	Earthen L	evee	GPS Latitude/Longitude				
Category				Start		End	
Item	Vegetation			37.807375°		37.807375°	
item			-121.4086	05 °	-121.408605 °		
DWR ID DWR_RD2089_02_s _ 2012_4							
Comment Code							

V4 : Elderberries are blocking visibility and flood fight capability.

Inspector Comment

Thick brush may include some elderberries.

No Photos

LM Start	0.08	Rating **	С	Issue No.		19	
LM End	0.08	Issue Type +	Ма	Location *	LS		
Catagoni Earthen Levee				GPS Latitude/Longitude			
Category						End	
Item	Vegetatio	n		37.8074	86°	37.807486	0
пеш				-121.4087	91 °	-121.408791	0
DWR ID	DWR_RD2	089_02_s _ 201	3_19				
		Comn	nent Coc	le			

 $\ensuremath{\mathsf{V2}}$  : Remove the wild growth other than native grasses from the levee slopes.

Inspector Comment

Vegetation on the levee slope and toe is partially obstructive.

* Location	** Rating		+ Issue Type
LS: Land Side N/A: Not Applicable WS: Water Side CR: Crown	A : Acceptable M : Minimally Acceptable U : Unacceptable	N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain	Ma : Maintenance Deficiancy Ob : Design & System Obsolescence En : Enforcement

# Levee Inspection Report By Mile - Spring 2016

# **Reclamation District No. 2089 Stark**

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 Salmon Slough	Right	1.35	03/15/2016 03/15/2016	Maksim Khashchuk

0.16	Rating **	U	Issue No.	48			
0.16	Issue Type +	Ма	Location *	LS			
Category Earthen Levee				GPS Latitude/Longitude			
					End		
Animal Control			37.808583°		37.808583 °		
Item			-121.40943	2°	-121.409432 °		
DWR ID DWR_RD2089_02_f _ 2013_48							
Comment Code							
	<b>0.16</b> Earthen L Animal Co	0.16 Issue Type + Earthen Levee Animal Control  DWR_RD2089_02_f_ 201:	0.16 Issue Type + Ma Earthen Levee Animal Control  DWR_RD2089_02_f_2013_48	0.16         Issue Type +         Ma         Location *           Earthen Levee         GPS Lat           Start         Start           Animal Control         37.80858           -121.40943           DWR_RD2089_02_f_2013_48	0.16         Issue Type +         Ma         Location *           Earthen Levee         GPS Latitud           Start           Animal Control         37.808583 °           -121.409432 °           DWR_RD2089_02_f _ 2013_48		

A3 : No rodents visible, but rodent burrows visible; need to backfill and compact or grout burrows.

Inspector Comment



View of the rodent burrow on the landside levee slope.

LM Start	0.21	Rating **	М	Issue No.		49	
LM End	0.21	Issue Type +	Ма	Location *		LS	
Earthen Levee				GPS Latitude/Longitude			
Category				Start		End	
Item	Animal Control			37.8091	48 °	37.809148°	
nem			-121.4098	97°	-121.409897 °		
DWR ID DWR_RD2089_02_f _ 2013_49							

#### Comment Code

A3 : No rodents visible, but rodent burrows visible; need to backfill and compact or grout burrows.

Inspector Comment



View of the multiple rodent burrows on the landside levee hinge and slope.

LM Start	0.26	Rating **	M	Issue No.	24		
LM End	0.26	Issue Type +	Ma	Location *	LS		
Category	Earthen Levee			GPS Latitude/Longitude			
Category	Category			Start		End	
Item	Animal Control			37.8097	17°	37.809717°	
пеш				-121.4105°	11 °	-121.410511 °	
DWR ID	DWR_RD2089_02_s _ 2012_24						

#### Comment Code

A1: Exterminate rodents and backfill and compact or grout burrows.

#### Inspector Comment

Ground squirrel sighted and active borrowing in area.

# Photo 1 of 1 : SP\_2016\_RD2089\_317\_24\_20160229\_00022.jpg



05/24/2011 Active burrows, ground squirrel sighted in area.

* Location	** Rating		+ Issue Type
LS : Land Side N/A : Not Applicable	A : Acceptable	N : Not Inspected/Rated	Ma : Maintenance Deficiancy
WS : Water Side	M : Minimally Acceptable	C : Corrected	Ob : Design & System Obsolescence
CR : Crown	U : Unacceptable	A/W : Acceptable but Monitor & Maintain	En : Enforcement

# Levee Inspection Report By Mile - Spring 2016

# **Reclamation District No. 2089 Stark**

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 Salmon Slough	Right	1.35	03/15/2016 03/15/2016	Maksim Khashchuk

LM Start	0.28	Rating **	U	Issue No.		52
LM End	0.30	Issue Type +	En	Location *		LS
Category Earthen Levee			GPS Latitude/Longitude			
			Start		End	
Item	Encroachments			37.8098	99°	37.809997°
item			-121.410888 °		-121.411298°	
DWR ID	DWR ID DWR_RD2089_02_f _ 2013_52					
		Comn	nent Cod	le		
PR : Pruni	ngs					
Inspector Comment						
Remove prunings and other debris from the levee toe.						



View of the tree branches on the landside levee toe obstructing access.

LM Start	0.28	Rating **	U	Issue No.		51	
LM End	0.28	Issue Type +	Ma	Location *		LS	
Category Earthen Levee				GPS Latitude/Longitude			
Category			Start		End		
Item	Animal Control			37.8098	99°	37.809899°	
item				-121.4108	89°	-121.410889°	
DWR ID DWR_RD2089_02_f _ 2013_51							
Comment Code							

A3 : No rodents visible, but rodent burrows visible; need to backfill and compact or grout burrows.

Inspector Comment

# Photo 1 of 1 : SP\_2016\_RD2089\_317\_51\_20160229\_00038.jpg



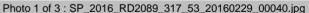
View of the rodent burrow on the landside levee toe.

LM Start	0.30	Rating **	U	Issue No.		53
LM End	0.31	Issue Type +	Ма	Location *		LS
Catagonia Earthen Levee			GPS Latitude/Longitude			
Calegory	Category			Start		End
Item	Animal Control			37.80997	7°	37.810022°
пеш					9°	-121.411387°
DWR ID DWR_RD2089_02_f _ 2013_53						

Comment Code
A1 : Exterminate rodents and backfill and compact or grout burrows.

#### Inspector Comment

Exterminating rodents and grouting the burrows recommended.





View of the multiple rodent burrows on the landside levee slope.

* Location	** Rating		+ Issue Type
LS: Land Side N/A: Not Applicable WS: Water Side CR: Crown	A : Acceptable M : Minimally Acceptable U : Unacceptable	N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain	Ma : Maintenance Deficiancy Ob : Design & System Obsolescence En : Enforcement

# Levee Inspection Report By Mile - Spring 2016

# **Reclamation District No. 2089 Stark**

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 Salmon Slough	Right	1.35	03/15/2016 03/15/2016	Maksim Khashchuk

LM Start	0.30	Rating **	U	Issue No.		53 (cont)	
LM End	0.31	Issue Type +	Ма	Location *		LS	
Category	Category Earthen Levee			GPS Latitude/Longitude			
Category				Start		End	
Item	Animal Co	ontrol		37.8099	77 °	37.810022 °	
пеш				-121.4111	89 °	-121.411387°	
DWR ID	DWR ID DWR_RD2089_02_f _ 2013_53						
		Comn	nent Cod	le			
A1 : Extern	minate rod	ents and back	fill and c	compact or	grou	t burrows.	
			_				
Inspector Comment							
Exterminating rodents and grouting the burrows recommended.							

Photo 2 of 3: SP_2016_RD2089_317_53_20160229_00041.jpg
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(4) (4) (4) (4) (4) (4) (4) (4) (4) (4)
The second secon

View of the rodent burrow on the landside levee slope.

 LM Start
 0.30
 Rating \*\*
 U
 Issue No.
 53 (cont)

 LM End
 0.31
 Issue Type +
 Ma
 Location \*
 LS

Photo 3 of 3: SP\_2016\_RD2089\_317\_53\_20160229\_00042.jpg



Another view of the multiple rodent burrows on the landside levee slope.

LM Start	0.35	Rating **	М	Issue No.		2
LM End	0.35	Issue Type +	En	Location *		CR
Catagoni Earthen Levee			GPS Latitude/Longitude			
Category		Start		End		
Item	Encroachments			37.8101	06 °	37.810106°
item			-121.412133 °		-121.412133°	
DWR ID DWR_RD2089_02_s _ 2012_2						
Comment Code						
FE : Fence	)					
Inspector Comment						
Gates acro	oss levee.					



View of gate across levee crown.

* Location	** Rating		+ Issue Type
LS : Land Side N/A : Not Applicable WS : Water Side CR : Crown	A : Acceptable M : Minimally Acceptable U : Unacceptable	N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain	Ma : Maintenance Deficiancy Ob : Design & System Obsolescence En : Enforcement

# Levee Inspection Report By Mile - Spring 2016

# **Reclamation District No. 2089 Stark**

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 Salmon Slough	Right	1.35	03/15/2016 03/15/2016	Maksim Khashchuk

LM Start	0.36	Rating **	M	Issue No.		26			
LM End	0.36	Issue Type +	Ма	Location *		LS			
Category	Earthen L	GPS La	atitud	e/Longitude					
Category				Start		End			
Item	Animal Co	ontrol		37.8101	25 °	37.810125 °			
пеш				-121.4123	17°	-121.412317 °			
DWR ID	DWR_RD2	089_02_s _ 201	2_26						
Comment Code									
A3 : No rodents visible, but rodent burrows visible; need to backfill and									

compact or grout burrows.

Inspector Comment

Active burrow needs to be repaired.



05/24/2011 Active rodent burrow.

LM Start	0.38	Rating **	С	Issue No.		8		
LM End	0.79	Issue Type +	Ma	Location *	LS			
Category Earthen Levee				GPS Latitude/Longitude				
Calegory				Start		End		
Item	Vegetatio	n		37.81010	)9°	37.814363 °		
пеш			-121.4126	9 °	-121.414297 °			
DWR ID	DWR_RD2089_02_s _ 2012_8							

Comment Code

V2 : Remove the wild growth other than native grasses from the levee slopes.

Inspector Comment

Tobacco leaf and other brush block access and visibility.

# Levee Inspection Report By Mile - Spring 2016

#### **Reclamation District No. 2089 Stark**

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 Salmon Slough	Right	1.35	03/15/2016 03/15/2016	Maksim Khashchuk

LM Start	0.40	Rating **	М	Issue No.		1
LM End	0.41	Issue Type +	Ma	Location *		WS
Category	Supplemental			GPS La	titud	le/Longitude
Calegory						End
Item	DWR Ero	sion Survey		37.8099	60°	37.809960 °
пеш			-121.4132	00°	-121.413200 °	
DWR ID	DWR_RD2089_02_s _ 2016_1					

# Inspector Comment

Comment Code

06/25/2015: No significant change observed.

07/02/2014: No significant change observed. 08/13/2013: No significant change observed.

08/07/2012: The site has been visited by boat survey. No significant change observed.

08/23/2011: No significant change observed on site.

09/07/2010: Site consists of a jutting rip rap that has created an eddy, scouring the levee slope. Most sections of the toe and lower slope are lined with rip rap. However, the rip rap is sloughing on the mid slope and at the toe, exposing the underlying soils and tree roots. The remaining revetment is no longer adequately protecting the slope. There are 3 Sycamore trees at the toe with exposed tree roots.

08/05/2010: Recommended for repair, per CLRO. 09/28/2009: Pocket erosion on lower slope just above the toe rip rap; protruding rip rap upstream is creating an eddy, scouring the levee slope; Site # is the same as RM28.40,LM0.30; previously rated "U"; pictures will be made available during the next survey.

11/05/2008: Cut into levee profile; riprap slide; rodent holes; pictures do not match GPS and current condition. [2015 Site ID:RD2089U02RM28.35]

LM Start	0.40	Rating **	М	Issue No.	1 (cont)
LM End	0.41	Issue Type +	Ma	Location *	WS

# Photo 1 of 2: SP\_2016\_RD2089\_317\_1\_20160229\_00001.jpg



View of the site from the survey boat.

#### Photo 2 of 2: SP\_2016\_RD2089\_317\_1\_20160229\_00002.jpg



View of the site from the survey boat.

# Levee Inspection Report By Mile - Spring 2016

# **Reclamation District No. 2089 Stark**

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 Salmon Slough	Right	1.35	03/15/2016 03/15/2016	Maksim Khashchuk

LM Start	0.42	Rating **	С	Issue No.		28			
LM End	0.65	Issue Type +	Ma	Location *		WS			
Category	Earthen L	evee	GPS La	atitud	le/Longitude				
Category	эгу			Start		End			
Item	Vegetatio	n	37.8103	71 °	37.812672 °				
пеш				-121.4133	97°	-121.415437 °			
DWR ID	DWR_RD2	089_02_f _ 201	5_28						
		Comn	nent Cod	le					
V2 : Remove the wild growth other than native grasses from the levee slopes.									
	Inspector Comment								

No Photos

LM Start	0.44	Rating **	Rating ** M			27	
LM End	0.44	Issue Type +	En	Location *		WS	
Category Earthen Levee				GPS Latitude/Longitude			
Calegory				Start		End	
Item	Encroach	ments		37.81049	0°	37.810490°	
пеш				-121.41363	8 °	-121.413638°	
DWR ID	ID DWR_RD2089_02_s _ 2012_27						

#### Comment Code

BU : Building

#### Inspector Comment

Portable toilet on bank, at water's edge.

#### Photo 1 of 1: SP\_2016\_RD2089\_317\_27\_20160229\_00024.jpg



05/24/2011 Portable toilet is in the shadows in the center of the photo at the water's edge.

Photo 1 of 1: SP\_2016\_RD2089\_317\_13\_20160229\_00015.jpg

LM Start	0.46	Rating **	М	Issue No.		13		
LM End	0.46	Issue Type +	Ма	Location *	CR			
Category	Category Earthen Levee			GPS Latitude/Longitude				
Calegory				Start		End		
Item	Animal Co	ontrol		37.81069 <sup>-</sup>	°	37.810691		
item		-121.414014	۱°	-121.414014				
DWR ID	DWR_RD2							

#### Comment Code

A3 : No rodents visible, but rodent burrows visible; need to backfill and compact or grout burrows.

#### Inspector Comment

Two old burrows that need to be filled.



11/10/2011 Two large burrows on crown, need to be filled.

- 3					
	* Location		** Rating		+ Issue Type
	LS: Land Side	N/A: Not Applicable	A : Acceptable	N : Not Inspected/Rated	Ma : Maintenance Deficiancy
	WS: Water Side		M : Minimally Acceptable	C : Corrected	Ob : Design & System Obsolescence
	CR : Crown		U : Unacceptable	A/W : Acceptable but Monitor & Maintain	En : Enforcement

# Levee Inspection Report By Mile - Spring 2016

# **Reclamation District No. 2089 Stark**

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 Salmon Slough	Right	1.35	03/15/2016 03/15/2016	Maksim Khashchuk

LM Start	0.47	Rating **	М	Issue No.		10		
LM End	0.47	Issue Type +	Ma	Location *		CR		
Category	evee	GPS La	atitud	e/Longitude				
Calegory				Start		End		
Item	Crown Su	ssions /	37.8107	'14 °	37.810714°			
пеш	Rutting			-121.414057 °		-121.414057 °		
DWR ID DWR_RD2089_02_s _ 2012_10								
		Comn	nent Cod	le				
C3: Add a	ppropriate	gravel or road	d base.	Grade and	com	pact.		
Inspector Comment								
Surface depression needs to be filled.								



11/10/2011 Depression in crown needs to be filled.

LM Start	0.50	Rating **	U	Issue No.		54		
LM End	0.50	Issue Type +	Ma	Location *		LS		
Category	Earthen L	evee	GPS Latitude/Longitude					
Calegory			Start		End			
Item	Animal Control				89°	37.810989°		
пеш			-121.4145	17°	-121.414517°			
DWR ID DWR_RD2089_02_f _ 2013_54								
Comment Code								

A1: Exterminate rodents and backfill and compact or grout burrows.

Inspector Comment

# Photo 1 of 1 : SP\_2016\_RD2089\_317\_54\_20160229\_00043.jpg

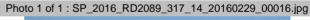
View of the rodent burrow on the landside levee slope.

LM Start	0.52	Rating **	U	Issue No.		14	
LM End	0.52	Issue Type +	Ma	Location *	WS		
Category	Earthen L	evee	GPS Latitude/Longitude				
Category				Start		End	
Item	Animal Co	ontrol		37.81115	50°	37.811150°	
item				-121.41474	18 °	-121.414748°	
DWR ID	DWR_RD2089_02_s _ 2012_14						
Comment Code							

A2 : Repair the levee slope damaged by livestock and prevent large animal access.

#### Inspector Comment

11/10/2011 Repair damage to slope caused by livestock.





11/10/2011 Approximately 1' scarp has been created by livestock travel.

* Location	** Rating		+ Issue Type
LS : Land Side N/A : Not Applicable WS : Water Side CR : Crown	A : Acceptable M : Minimally Acceptable U : Unacceptable	N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain	Ma : Maintenance Deficiancy Ob : Design & System Obsolescence En : Enforcement

# Levee Inspection Report By Mile - Spring 2016

# **Reclamation District No. 2089 Stark**

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 Salmon Slough	Right	1.35	03/15/2016 03/15/2016	Maksim Khashchuk

LM Start	0.54	Rating **	М	Issue No.		58	
LM End	0.54	Issue Type +	En	Location *	WS		
Category	ental	GPS Latitude/Longitude					
Calegory	Category					End	
Itom	DWR UC		37.81136	9°	37.811369°		
пеш	Item				o°	-121.415050 °	
DWR ID	R ID						
Comment Code							

# Inspector Comment

FS\_ID:21676 DS\_ID:23047 EP\_NO: N/A

Repair Type: Non-Urgent Crossing Status: Found

UCIP Comments: - air relief valve on waterside. Needs repair.-

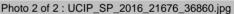
concrete standpipe on landside.

FIELD\_STRUCT\_DESC: 14-inch pipe through the levee, 8.0 feet below the crown, pump on pile structure in the stream. Air relief valve on the waterside slope. Timber walkway to the pump. Concrete distribution standpipe on landside toe. Originally included in O+M (1968) FS Date: 9/12/2013

LM Start	0.54	Rating **	М	Issue No.	58 (cont)
LM End	0.54	Issue Type +	En	Location *	WS



WS view: pipe and pump on piling strucure in water channel.





WS view: air relief valve on pipe. Pipe exposed in levee slope.

# Levee Inspection Report By Mile - Spring 2016

# **Reclamation District No. 2089 Stark**

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 Salmon Slough	Right	1.35	03/15/2016 03/15/2016	Maksim Khashchuk

LM Start	0.54	Rating **	M	Issue No.		35		
LM End	0.54	Issue Type +	Ма	Location *	CR			
Category	evee	GPS La	atitud	e/Longitude				
Calegory				Start		End		
Item		rface / Depres	ssions /	37.8113	82°	37.811382°		
item	Rutting			-121.415054 °		-121.415054°		
DWR ID DWR_RD2089_02_f _ 2015_35								
	Comment Code							
C2 : Repai	ir depressi	ons or ruts in	the crow	n or slope.				
		Inspecto	or Comm	nent				

LM Start	0.54	Rating **	М	Issue No.	35 (cont)
LM End	0.54	Issue Type +	Ma	Location *	CR



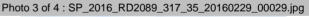
View of the levee crown depression looking upstream.

Photo 2 of 4: SP\_2016\_RD2089\_317\_35\_20160229\_00028.jpg



View of the levee crown depression looking downstream.

LM Start	0.54	Rating **	М	Issue No.	35 (cont)
LM End	0.54	Issue Type +	Ma	Location *	CR





View of the levee crown depression looking to the landside.

* Location	** Rating		+ Issue Type
LS : Land Side N/A : Not Applicable WS : Water Side CR : Crown	A : Acceptable M : Minimally Acceptable U : Unacceptable	N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain	Ma : Maintenance Deficiancy Ob : Design & System Obsolescence En : Enforcement

# Levee Inspection Report By Mile - Spring 2016

# **Reclamation District No. 2089 Stark**

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 Salmon Slough	Right	1.35	03/15/2016 03/15/2016	Maksim Khashchuk

LM Start	0.54	Rating **	М	Issue No.		35 (cont)	
LM End	0.54	Issue Type +	Ma	Location *	CR		
Category	Earthen L	evee		GPS La	atitud	e/Longitude	
Calegory				Start		End	
Item	Crown Su	rface / Depres	ssions /	37.8113	82°	37.811382 °	
пеш	Rutting			-121.4150	)54°	-121.415054°	
DWR ID DWR_RD2089_02_f _ 2015_35							
		Comn	nent Cod	le			
C2 : Repa	ir depressi	ons or ruts in	the crow	n or slope.			
		Inspecto	or Comm	nent			



View of the levee crown depression looking to the waterside.

LM Start	0.77	Rating **	М	Issue No.		15	
LM End	0.77	Issue Type + Ma		Location *		LS	
Category	evee	GPS Latitude/Longitude					
Calegory	alegory					End	
Item	Erosion /		37.8139	69°	37.813969	0	
iteiii				-121.4143	24 °	-121.414324	0
DWR ID DWR_RD2089_02_f _ 2014_15							

#### Comment Code

E2: Schedule repair of erosion site prior to the next inspection.

#### Inspector Comment

# Photo 1 of 1 : SP\_2016\_RD2089\_317\_15\_20160229\_00017.jpg



View of the scour from surface runoff on the landside levee slope.

LM Start	0.80	Rating **	U	Issue No.		36
LM End	0.84	Issue Type +	Ma	Location *		LS
Category	evee	GPS La	atitud	e/Longitude		
Calegory				Start		End
Item	Vegetatio	n		37.8144	21 °	37.814913 °
пеш				-121.4142	03 °	-121.414594°
DWR ID DWR_RD2089_02_s _ 2012_36						

#### Comment Code

 $\ensuremath{\mathsf{V2}}$  : Remove the wild growth other than native grasses from the levee slopes.

#### Inspector Comment

Wild growth and dead underbrush prevents visibility of levee slope and area cannot be accessed if needed for a flood fight.

#### Photo 1 of 1: SP\_2016\_RD2089\_317\_36\_20160229\_00031.jpg



Extremely thick dead brush prevents access and visibility.

* Location	** Rating		+ Issue Type
LS : Land Side N/A : Not Applicable WS : Water Side CR : Crown	A : Acceptable M : Minimally Acceptable U : Unacceptable	N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain	Ma : Maintenance Deficiancy Ob : Design & System Obsolescence En : Enforcement

# Levee Inspection Report By Mile - Spring 2016

# **Reclamation District No. 2089 Stark**

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 Salmon Slough	Right	1.35	03/15/2016 03/15/2016	Maksim Khashchuk

LM Start	0.83	Rating **	М	Issue No.		21	
LM End	0.83	Issue Type +	Ma	Location *		WS	
Category	Earthen L	evee		GPS La	atitud	e/Longitude	
Calegory				Start		End	
Item	Animal Control			37.8147	73 °	37.814773 °	
item				-121.4145	55 °	-121.414555 °	
DWR ID	DWR_RD2	089_02_s _ 201	2_21				
		Comn	nent Cod	le			
A2 : Repai animal acc		slope damag	jed by liv	estock and	prev	vent large	
Inspector Comment							
Livestock have worn paths into levee slope.							

No Photos

LM Start	0.83	Rating **	М	Issue No.		38		
LM End	0.83	Issue Type +	Ма	Location *		WS		
Category Earthen Levee				GPS Latitude/Longitude				
Category				Start		End		
Item	Animal Co	ontrol		37.81484	4 °	37.814844 °		
пеш			-121.41456	66°	-121.414566 °			
DWR ID DWR_RD2089_02_s _ 2012_38								
Comment Code								

Comment Code

A3 : No rodents visible, but rodent burrows visible; need to backfill and compact or grout burrows.

Inspector Comment

Active burrows present.

No Photos

LM Start	0.84	Rating **	М	Issue No.		9	
LM End	0.84	Issue Type +	En	Location *		CR	
Cotogon Earthen Levee				GPS La	titud	e/Longitude	
Category				Start		End	
Item	Encroach	ments		37.81488	31 °	37.814881 °	
пеш				-121.4146	76 °	-121.414676 °	
DWR ID DWR_RD2089_02_s _ 2012_9							
Comment Code							

FE : Fence

Inspector Comment

Gate across levee crown.



View of the fence gate across levee crown.

* Location	** Rating		+ Issue Type
LS: Land Side N/A: Not Applicable WS: Water Side CR: Crown	A : Acceptable M : Minimally Acceptable U : Unacceptable	N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain	Ma : Maintenance Deficiancy Ob : Design & System Obsolescence En : Enforcement

# Levee Inspection Report By Mile - Spring 2016

# **Reclamation District No. 2089 Stark**

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 Salmon Slough	Right	1.35	03/15/2016 03/15/2016	Maksim Khashchuk

LM Start	0.84	Rating **	М	Issue No.		25	
LM End	0.84	Issue Type +	Ma	Location *		LS	
Category Earthen Levee			GPS La	atitud	le/Longitude		
Calegory	Category			Start		End	
Item	Vegetatio	n		37.814906 °		37.814906 °	
item				-121.4147	45 °	-121.414745 °	
DWR ID DWR_RD2089_02_s _ 2012_25							
Comment Code							
V/4 · Eldor	porrios aro	blocking vicib	sility and	flood fight	nana	hility	

V4 : Elderberries are blocking visibility and flood fight capability.

Inspector Comment

Elderberry and blackberry on levee slope.

LM Sta LM En

LM Start	0.85	Rating ***	U	issue ino.	40	Photo 1 of 3 : SP_2016_RD2089_317_40_20160229
LM End	0.90	Issue Type +	Ма	Location *	LS	
Category	Earthen L	evee		GPS La	atitude/Longitude	
Calegory				0, ,		

End

Animal Control 37.814997° 37.814970 Item -121.414774 ° -121.415767°

Start

DWR ID DWR\_RD2089\_02\_s \_ 2012\_40 Comment Code

A1: Exterminate rodents and backfill and compact or grout burrows.

#### Inspector Comment

Numerous burrows on landside slope adjacent to hay storage area. Deep burrows in crown and landside ramp.

LM Start	0.85	Rating **	U	Issue No.	40 (cont)
LM End	0.90	Issue Type +	Ma	Location *	LS





05/24/2011 Deep vertical burrow in ramp on land side of levee.

Photo 2 of 3: SP\_2016\_RD2089\_317\_40\_20160229\_00033.jpg



05/24/2011 Deep vertical burrow in levee crown.

* Location	** Rating		+ Issue Type
LS : Land Side N/A : Not Applicable WS : Water Side CR : Crown	A : Acceptable M : Minimally Acceptable U : Unacceptable	N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain	Ma : Maintenance Deficiancy Ob : Design & System Obsolescence En : Enforcement

# Levee Inspection Report By Mile - Spring 2016

# **Reclamation District No. 2089 Stark**

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 Salmon Slough	Right	1.35	03/15/2016 03/15/2016	Maksim Khashchuk

LM Start	0.85	Rating **	U	Issue No.		40 (cont)	
LM End	0.90	Issue Type +	Ma	Location *	LS		
Category	Earthen L	evee		GPS Latitude/Longitude			
Calegory				Start		End	
Item	Animal Control			37.814997 °		37.814970°	
пеш				-121.41477	'4 °	-121.415767 °	
DWR ID	DWR_RD2	D2089_02_s _ 2012_40					
	Comment Code						

A1: Exterminate rodents and backfill and compact or grout burrows.

#### Inspector Comment

Numerous burrows on landside slope adjacent to hay storage area. Deep burrows in crown and landside ramp. Photo 3 of 3: SP\_2016\_RD2089\_317\_40\_20160229\_00034.jpg



View of the multiple rodent holes on the landside levee slope.

LM Start	0.91	Rating **	М	Issue No.		22
LM End	0.91	Issue Type +	Ma	Location *	LS	
Category	Earthen L	evee		GPS La	atitud	le/Longitude
Calegory				Start		End
Item	Animal Control			37.8149	03°	37.814903
item				-121.4158	87 °	-121.415887
DWR ID	DWR_RD2089_02_s _ 2015_22					

Comment Code

A3 : No rodents visible, but rodent burrows visible; need to backfill and compact or grout burrows.

#### Inspector Comment

No Photos

LM Start	0.94	Rating **	М	Issue No.	41		
LM End	0.94	Issue Type +	Ма	Location *	WS		
Category	Earthen L	evee	GPS Latitude/Longitude				
Calegory			Start		End		
Item	Encroach	Encroachments			40°	37.814940 °	
пеш				-121.41649	99°	-121.416499 °	
DWR ID	ID DWR_RD2089_02_s _ 2012_41						
	Comment Code						

PI : Pipe

#### Inspector Comment

Debris/CMP on levee slope needs to be removed.



05/24/2011 Old CMP left on waterside levee slope, needs to be removed.

\* Location

LS: Land Side N/A: Not Applicable WS: Water Side CR: Crown

\*\* Rating

A: Acceptable N: Not Inspected/Rated M: Minimally Acceptable C: Corrected A/W: Acceptable but Monitor & Maintain

\*\* Rating

A: Acceptable N: Not Inspected/Rated Ma: Maintenance Deficiancy Ob: Design & System Obsolescence En: Enforcement

# Levee Inspection Report By Mile - Spring 2016

# **Reclamation District No. 2089 Stark**

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 Salmon Slough	Right	1.35	03/15/2016 03/15/2016	Maksim Khashchuk

LM Start	0.95	Rating **	U	Issue No.		5	
LM End	0.95	Issue Type +	Ма	Location *		LS	
Category	Earthen L	evee		GPS La	atitud	e/Longitude	
Calegory				Start		End	
Item	Animal Co	ontrol		37.8149	15 °	37.814915°	
пеш				-121.416606 ° -121.41660			
DWR ID	DWR_RD2	089_02_s _ 201	4_5				
		Comn	nent Cod	le			
A1 : Exteri	minate rod	ents and back	fill and o	compact or	grou	t burrows.	
		Inspecto	or Comm	nent			



View of the rodent holes on the landside levee slope.

LM Start	1.00	Rating **	U	Issue No.		12		
LM End	1.00	Issue Type +	Ma	Location *	CR			
Category	Earthen L		GPS Latitude/Longitude					
Calegory				Start		End		
Item	Animal Control			37.8151	82 °	37.815182°		
пеш			-121.4174	39°	-121.417439°			
DWR ID DWR_RD2089_02_f _ 2014_12								

#### Comment Code

A3 : No rodents visible, but rodent burrows visible; need to backfill and compact or grout burrows.

### Inspector Comment

LM Start	1.00	Rating **	U	Issue No.	12 (cont)
LM End	1.00	Issue Type +	Ma	Location *	CR

#### Photo 1 of 2: SP\_2016\_RD2089\_317\_12\_20160229\_00013.jpg



View of several large rodent holes on the levee crown.

#### Photo 2 of 2: SP\_2016\_RD2089\_317\_12\_20160229\_00014.jpg



View of several rodent burrows on landside levee hinge and crown.

\* Location

LS: Land Side N/A: Not Applicable WS: Water Side CR: Crown

\*\* Rating

A: Acceptable N: Not Inspected/Rated M: Minimally Acceptable U: Unacceptable U: Unacceptable WA: Acceptable but Monitor & Maintain

\*\* Rating

A: Acceptable N: Not Inspected/Rated Ma: Maintenance Deficiancy Ob: Design & System Obsolescence En: Enforcement

# Levee Inspection Report By Mile - Spring 2016

# **Reclamation District No. 2089 Stark**

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 Salmon Slough	Right	1.35	03/15/2016 03/15/2016	Maksim Khashchuk

1.05	Rating **	N	Issue No.		29	
1.05	Issue Type +	Ма	Location *	WS		
Earthen L		GPS Latitude/Longitude				
			Start		End	
Trim / Thin Trees			37.815629°		37.815629 °	
Item				-121.418133		
DWR_RD2	089_02_s _ 201	2_29				
Comment Code						
T5 : Tree stumps.						
	1.05 Earthen L Trim / Thin	1.05 Issue Type + Earthen Levee Trim / Thin Trees DWR_RD2089_02_s _ 201 Comn	1.05 Issue Type + Ma Earthen Levee Trim / Thin Trees  DWR_RD2089_02_s _ 2012_29 Comment Coc	1.05 Issue Type + Ma Location *  Earthen Levee GPS La Start  Trim / Thin Trees 37.81562 -121.41813  DWR_RD2089_02_s _ 2012_29 Comment Code	1.05 Issue Type + Ma Location *  Earthen Levee GPS Latitud Start  Trim / Thin Trees 37.815629  -121.418133 °  DWR_RD2089_02_s_2012_29 Comment Code	

#### Inspector Comment

14" dia stump. Could not verify as the area is overgrown with high weeds.

Photo 1 of 1: SP_2016_RD2089_317_29_20160229_00026.jpg	
15 大人人 1 M 10 10 10 10 10 10 10 10 10 10 10 10 10	
ALCOHOLD TO THE SECOND	
The state of the s	

Tree stump >2" left after vegetation and tree removal.

LM Start	1.09	Rating **	М	Issue No.		17	
LM End	1.09	Issue Type +	Ма	Location *	WS		
Category	Earthen Levee			GPS Latitude/Longitue			
Category			Start		End		
Item	Encroachments			37.8161	00°	37.816100 °	
пеш	item			-121.4184	87 °	-121.418487 °	
DWR ID DWR_RD2089_02_s _ 2012_17							

DE : Debris

#### Inspector Comment

Comment Code

Water tanks disposed of on levee are obstructive.



View of water tanks disposed on waterside slope.

LM Start	1.12	Rating **	М	Issue No.		30		
LM End	1.12	Issue Type +	Ma	Location *		WS		
Category	Earthen Levee			GPS Latitude/Longitude				
Calegory			Start		End			
Item	Vegetatio	Vegetation		37.8164	87 °	37.816487	0	
item				-121.4189	48 °	-121.418948	0	
DWR ID	DWR_RD2	089_02_s _ 201	2_30					
	Comment Code							

V4 : Elderberries are blocking visibility and flood fight capability.

Inspector Comment

* Location	** Rating		+ Issue Type
LS: Land Side N/A: Not Applicable WS: Water Side CR: Crown	A : Acceptable M : Minimally Acceptable U : Unacceptable	N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain	Ma : Maintenance Deficiancy Ob : Design & System Obsolescence En : Enforcement

# Levee Inspection Report By Mile - Spring 2016

# **Reclamation District No. 2089 Stark**

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 Salmon Slough	Right	1.35	03/15/2016 03/15/2016	Maksim Khashchuk

1.18	Rating **	M	Issue No.		6		
1.18	Issue Type +	Ма	Location *		LS		
Earthen L	evee		GPS La	atitud	le/Longitude		
			Start		End		
Animal Control			37.8172	71 °	37.817271 °		
			-121.419380 °		-121.419380°		
DWR ID DWR_RD2089_02_s _ 2014_6							
	Comn	nent Cod	le				
inate rode	ents and back	fill and c	ompact or	grou	it burrows.		
Inspector Comment							
	1.18 Earthen Lo	1.18 Issue Type + Earthen Levee Animal Control  DWR_RD2089_02_s_201  Comminate rodents and back	1.18 Issue Type + Ma  Earthen Levee  Animal Control  DWR_RD2089_02_s_2014_6  Comment Cocinate rodents and backfill and comments are comments.	1.18 Issue Type + Ma Location *  Earthen Levee GPS La  Start  Animal Control 37.8172  -121.4193  DWR_RD2089_02_s _ 2014_6  Comment Code  inate rodents and backfill and compact or	1.18 Issue Type + Ma Location *  Earthen Levee GPS Latitud Start  Animal Control 37.817271 ° -121.419380 °  DWR_RD2089_02_s _ 2014_6 Comment Code  inate rodents and backfill and compact or ground		



View of the large rodent hole on the landside levee slope.

LM Start	1.22	Rating **	М	Issue No.	7	
LM End	1.22	Issue Type +	En	Location *	LS	
Category Earthen Levee			GPS Latitude/Longitude			
Calegory		Start		End		
Itom	ltem Encroachments			37.817796°		37.817796°
item				-121.419650 °		-121.419650 °
DWR ID DWR_RD2089_02_s _ 2014_7						
Comment Code						

CR : Crops

Inspector Comment

Animal feed stored at the landside levee toe.

Photo 1 of 1 : SP_2016_RD2089_317_7_20160229_00008.jpg
WASHINGTON TO STATE OF THE PARTY OF THE PART
- CONTRACT - NO.
18/27/2014
View of the existed food at a local at the local did become

View of the animal feed stockpiled at the landside levee toe.

LM Start	1.24	Rating **	М	Issue No.		31		
LM End	1.24	Issue Type +	Ma	Location *		WS		
Category Earthen Levee				GPS Latitude/Longitude				
Calegory	y			Start		End		
Item	Vegetation		37.818051 °		37.818051	0		
пеш				-121.4197	43 °	-121.419743	0	
DWR ID	089_02_s _ 201							
	Comment Code							

V4 : Elderberries are blocking visibility and flood fight capability.

Inspector Comment

* Location	** Rating		+ Issue Type
LS : Land Side N/A : Not Applicable WS : Water Side CR : Crown	A : Acceptable M : Minimally Acceptable U : Unacceptable	N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain	Ma : Maintenance Deficiancy Ob : Design & System Obsolescence En : Enforcement

# Levee Inspection Report By Mile - Spring 2016

# **Reclamation District No. 2089 Stark**

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 Salmon Slough	Right	1.35	03/15/2016 03/15/2016	Maksim Khashchuk

LM Start	1.24	Rating **	U	Issue No.		37
LM End	1.24	Issue Type +	En	Location *		LS
Cotogony	Category Earthen Levee			GPS La	atitud	e/Longitude
Calegory				Start		End
Encroachments			37.8180	97°	37.818097	
пеш			-121.419709 °		-121.419709	
DWR ID DWR_RD2089_02_s _ 2016_37						
		Comn	nent Cod	le		
PR : Pruni	ngs					
Inspector Comment						



View of the prunings on the landside levee slope.

LM Start	1.25	Rating **	U	Issue No.		23
LM End	1.31	Issue Type +	En	Location *		LS
Cotagon Earthen Levee				GPS Latitude/Longitude		
Category				Start		End
Item	Encroachments			37.8182	77°	37.819040 °
пеш					25 °	-121.419760 °
DWR ID DWR_RD2089_02_s _ 2012_23						

#### Comment Code

BU : Building

#### Inspector Comment

Buildings and equipment encroach within 10-ft of landside toe. The boat was removed.

# Photo 1 of 1: SP\_2016\_RD2089\_317\_23\_20160229\_00021.jpg



Fall 2009 photo: Buildings and patio decks are built within 10-ft of the levee slope.

LM Start	1.27	Rating **	М	Issue No.		57	
LM End	1.27	Issue Type +	En	Location *		CR	
Category Earthen Levee			GPS Latitude/Longitude				
			Start		End		
Item	Vegetation			37.81849	99°	37.818499°	
item				-121.4197	54°	-121.419754°	
DWR ID DWR_RD2089_02_f _ 2013_57							
0 10 1							

#### Comment Code

V6 : Landscaping

#### Inspector Comment

Remove cactus from levee crown.



View of the cactus on the landside levee shoulder.

* Location	** Rating		+ Issue Type
LS : Land Side N/A : Not Applicable WS : Water Side CR : Crown	A : Acceptable M : Minimally Acceptable U : Unacceptable	N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain	Ma : Maintenance Deficiancy Ob : Design & System Obsolescence En : Enforcement

# Levee Inspection Report By Mile - Spring 2016

# **Reclamation District No. 2089 Stark**

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 Salmon Slough	Right	1.35	03/15/2016 03/15/2016	Maksim Khashchuk

LM Start	1.29	Rating **	A/W	Issue No.		32
LM End	1.29	Issue Type +	Ма	Location *		WS
Category	Catagoria Earthen Levee			GPS La	atitud	e/Longitude
Calegory				Start		End
Item	Vegetation			37.8188	29°	37.818829 °
item				-121.419776 °		-121.419776 °
DWR ID DWR_RD2089_02_s _ 2012_32						
		Comn	nent Cod	le		
V4 : Elderk	perries are	blocking visit	ility and	flood fight	сара	bility.
			_			
Inspector Comment						

No Photos

LM Start	1.29	Rating **	С	Issue No.		18	
LM End	1.29	Issue Type +	En	Location *		LS	
Category Earthen Levee				GPS Latitude/Longitude			
Calegory	Category			Start		End	
Item	Encroachments			37.81886	64°	37.818864 °	
пеш	item			-121.4197	56°	-121.419756°	
DWR ID	DWR ID DWR_RD2089_02_s _ 2015_18						
Comment Code							
FW : Firewood							

No Photos

Inspector Comment

LM Start	1.30	Rating **	М	Issue No.		16	
LM End	1.30	Issue Type +	Ma	Location *		LS	
Category Earthen Levee				GPS Latitude/Longitude			
Calegory				Start		End	
Animal Control			37.818987°		37.818987 °		
ltem				-121.419767°		° -121.419767	
DWR ID DWR_RD2089_02_s _ 2015_16							
Comment Code							

No Photos

A1 : Exterminate rodents and backfill and compact or grout burrows.

Inspector Comment

\* Location

LS: Land Side N/A: Not Applicable WS: Water Side CR: Crown

\*\* Rating

A: Acceptable N: Not Inspected/Rated M: Minimally Acceptable C: Corrected A/W: Acceptable but Monitor & Maintain

\*\* Rating

A: Acceptable N: Not Inspected/Rated Ma: Maintenance Deficiancy Ob: Design & System Obsolescence En: Enforcement

# Levee Inspection Report By Mile - Spring 2016

# **Reclamation District No. 2089 Stark**

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 Salmon Slough	Right	1.35	03/15/2016 03/15/2016	Maksim Khashchuk

LM Start	1.33	Rating **	U	Issue No.		11
LM End	1.33	Issue Type +	Ма	Location *		LS
Category Earthen Levee			GPS Latitude/Longitude			
Calegory	llegory			Start		End
Item	Animal Control			37.8193	871 °	37.819371 °
пеш				-121.419774 °		-121.419774 °
DWR ID DWR_RD2089_02_f _ 2014_11						
Comment Code						
A3 : No rodents visible, but rodent burrows visible; need to backfill and compact or grout burrows.						
Inspector Comment						

Photo 1 of 1 : SP\_2016\_RD2089\_317\_11\_20160229\_00012.jpg

View of the multiple rodent burrows on the landside levee slope.